

FACT SHEET FOR STATE WASTE DISCHARGE PERMIT ST 6076
FACILITY NAME Cresline-Northwest, LLC
(May 2010)

SUMMARY

PURPOSE of this Fact Sheet

This fact sheet explains and documents the decisions the Department of Ecology (Ecology) made in drafting the proposed State Waste Discharge permit for Cresline-Northwest, LLC that will allow the discharge of wastewater to the city of Chehalis Publicly Owned Treatment Works (POTW).

State law requires any industrial facility to obtain a permit before discharging waste or chemicals to waters of the state. This statute includes commercial or industrial discharges to sewerage systems operated by municipalities or public entities which discharge into waters of the state.

A State Waste Discharge permit limits the types and amounts of pollution the facility may discharge. Ecology bases those limits either on (1) the pollution control or wastewater treatment technology available to the industry, or on (2) the effects of the pollutants to the POTW (local limits).

PUBLIC ROLE in the Permit

Ecology makes the draft permit and fact sheet available for public review and comment at least 30 days before we issue the final permit to the facility operator. Copies of the fact sheet and draft permit for Cresline-Northwest, LLC, State Waste Discharge permit ST 6076 are available for public review and comment from June 15, 2010, until the close of business July 14, 2010. For more details on preparing and filing comments about these documents, please see **Appendix A - Public Involvement**.

Before Ecology published the draft State Waste Discharge permit, Cresline-Northwest, LLC, reviewed it for factual accuracy. Ecology corrected any errors or omissions about the facility's location, product type or production rate, discharges or receiving water, or its history.

After the public comment period closes, Ecology will summarize substantive comments and our responses to them. Ecology will include our summary and responses to comments to this Fact Sheet as **Appendix D- Response to Comments**, and publish it when we issue the final State Waste Discharge permit. The rest of the fact sheet will not be revised, but the full document will become part of the legal history contained in the facility's permit file.

TABLE OF CONTENTS

I. INTRODUCTION	1
II. BACKGROUND INFORMATION	3
A. Facility Description	3
History	3
Industrial Process	3
Wastewater Pretreatment	4
Discharge Location to the City of Chehalis	5
Solid Wastes	5
B. Permit Status	6
C. Summary of Compliance with Previous Permit Issued	6
D. Wastewater Characterization	6
E. SEPA Compliance	8
III. PROPOSED PERMIT CONDITIONS	8
A. Technology-Based Effluent Limits	8
B. Effluent Limits Based On Local Limits	9
C. Comparison Of Effluent Limits With Limits of The Previous Permit Issued on June 10, 2004	10
IV. MONITORING REQUIREMENTS	11
A. Lab Accreditation	12
V. OTHER PERMIT CONDITIONS	12
A. Reporting and Recordkeeping	12
B. Operations and Maintenance	13
C. Prohibited Discharges	13
D. Dilution Prohibited	13
E. General Conditions	13
VI. PUBLIC NOTIFICATION OF NONCOMPLIANCE	13
VII. PERMIT ISSUANCE PROCEDURES	13
A. Permit Modifications	13
B. Proposed Permit Issuance	13
VIII. REFERENCES FOR TEXT AND APPENDICES	13
APPENDICES	14
APPENDIX A--PUBLIC INVOLVEMENT INFORMATION	14
APPENDIX B--GLOSSARY	15
APPENDIX C--TECHNICAL CALCULATIONS	20
APPENDIX D—RESPONSE TO COMMENTS	23

FACT SHEET FOR STATE WASTE DISCHARGE PERMIT ST 6076

FACILITY NAME *Cresline-Northwest, LLC*

(May 2010)

I. INTRODUCTION

The legislature defined Ecology's authority and obligations for the wastewater discharge permit program in 90.48 RCW (Revised Code of Washington).

Ecology adopted rules describing how it exercises its authority:

State Waste Discharge Program (Chapter 173-216 Washington Administrative Code [WAC])

Submission of Plans and Reports for Construction of Wastewater Facilities (Chapter 173-240 WAC)

These rules require any industrial facility operator to obtain a State Waste Discharge permit before discharging wastewater to state waters. This rule includes commercial or industrial discharges to sewerage systems operated by municipalities or public entities which discharge into public waters of the state. They also help define the basis for limits on each discharge and for other performance requirements imposed by the permit.

Under the State Waste Discharge permit program and in response to a complete and accepted permit application Ecology must prepare a draft permit and accompanying fact sheet, and make it available for public review before final issuance. Ecology must also publish an announcement (public notice) telling people where they can read the draft permit, and where to send their comments, during a period of thirty days. (See **Appendix A--Public Involvement** for more detail about the Public Notice and Comment procedures). After the Public Comment Period ends, Ecology may make changes to the draft State Waste Discharge permit in response to comment. Ecology will summarize the responses to comments and any changes to the permit in **Appendix D**.

Table 1: General Facility Information

Applicant:	Cresline-Northwest, LLC
Facility Name and Address:	Cresline-Northwest, LLC 223 Maurin Road Chehalis, WA 98532
Type of Facility:	Extrusion, inventory and shipping of polyvinyl chloride (PVC) pipe products
SIC Code	3084
Discharge Location:	Latitude: 46.626111 N Longitude: 122.921111 W
Treatment Plant Receiving Discharge	City of Chehalis Publicly Owned Treatment Works (POTW)
Contact at Facility	Name: Mark Stambaugh Title: Plant Manager Telephone #: 360-740-0700

FACT SHEET FOR STATE WASTE DISCHARGE PERMIT ST 6076

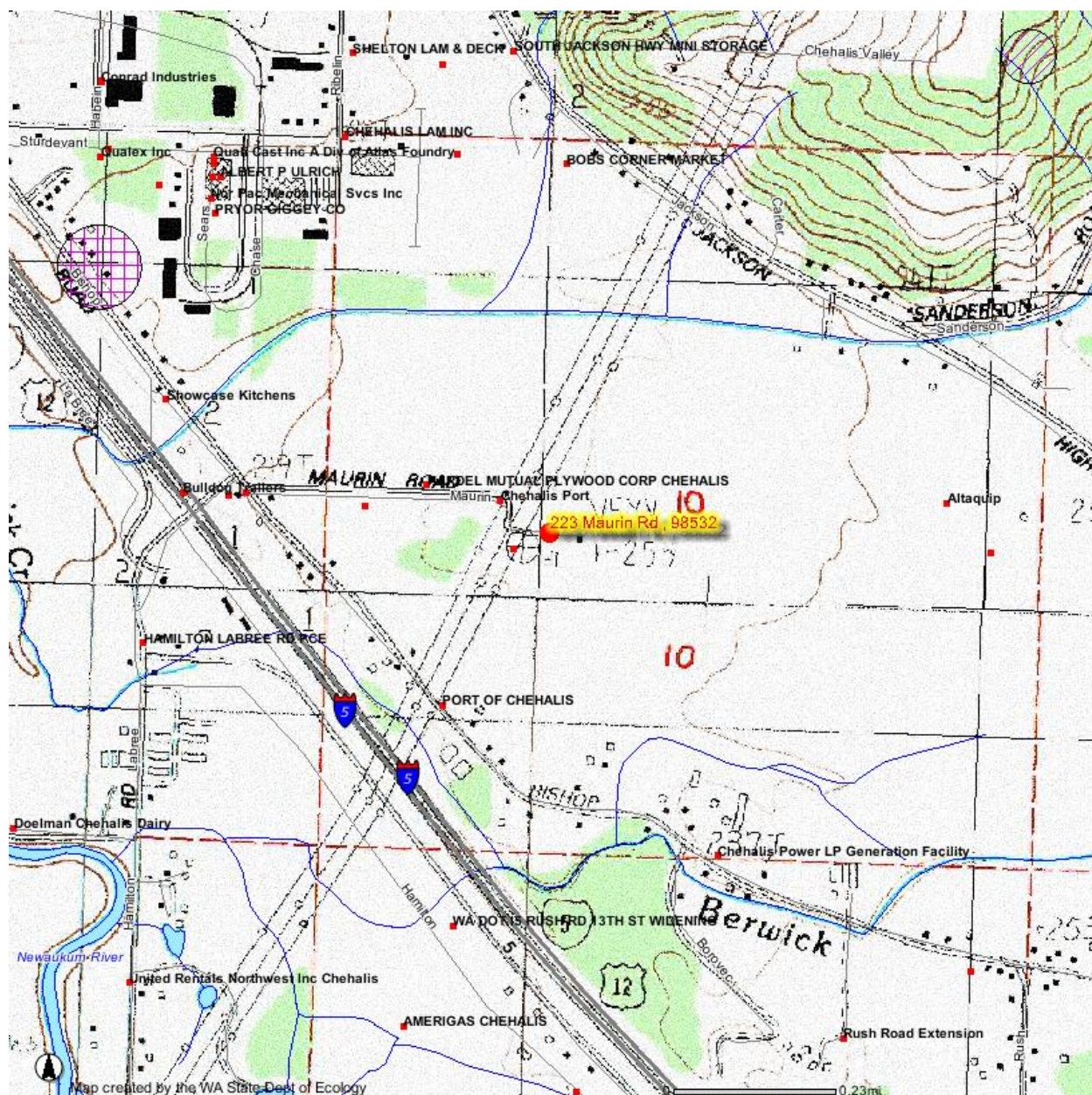
FACILITY NAME Cresline-Northwest, LLC

(May 2010)

Table 1: General Facility Information

Responsible Official	Name: Michael E. Hatley Title: Vice President - Manufacturing Address: 851 South U.S. 41 Henderson, Kentucky 42420 Telephone #: 270-826-8317 FAX #: 270-830-8030
----------------------	---

Figure 1: Facility Location Map



II. BACKGROUND INFORMATION

A. Facility Description

Cresline-Northwest produces polyvinyl chloride (PCV) pipes. The facility discharges maximum of 600 gallons per day (gpd) of industrial wastewater to the city of Chehalis Publicly Owned Treatment Works (POTW). The facility is subject to local limits codified in Chehalis Municipal Code Chapter 13.08. Cresline-Northwest is also subject to the Environmental Protection Agency (EPA) Effluent Guidelines and Standards listed in 40 Code of Federal Regulations (CFR) 463—Plastics Molding and Forming Pont Source Category and therefore the facility is a significant industrial user.

History

- Constructed in 2002.
- Production began in January 2003.
- Privately owned by Richard Schroeder.
- One extruder added on March 13, 2006—33 percent production capacity increase.
- Crestline Plastic Pipe Co., Inc. has six plants across the United States of America. One of them is Crestline-Northwest located in Chehalis (information obtained from the company website www.cresline.com).
- This is a renewal of the permit.

Industrial Process

Cresline-Northwest extrudes, inventories and ships polyvinyl chloride pipe. The facility reported on the permit application an annual production of forty two million pounds of PVC pipe, Table 2. Production varies with market demand.

Table 2: Production.

Type	Quantity (pounds per year)
PVC pipe	42,000,000

Raw materials are PVC resin, PVC UV stabilizer, calcium stearate, calcium carbonate, wax and titanium dioxide, Table 3.

Table 3: Raw material.

Type	Quantity (pounds per year)
Polyvinyl chloride (PVC) resin	41,000,000
PVC UV stabilizer	164,000
Calcium stearate	345,000
Calcium carbonate	3,225,000

FACT SHEET FOR STATE WASTE DISCHARGE PERMIT ST 6076

FACILITY NAME *Cresline-Northwest, LLC*

(May 2010)

Table 3: Raw material.

Type	Quantity (pounds per year)
Wax	410,000
Titanium dioxide	345,000

Other process information:

- Cresline-Northwest had three extruders when the facility was constructed in 2002. One extruder was added March 13, 2006. There are two lines per extruder. The existing building can house six extruders, two in addition to existing four; however, the building can be extended to house nine extruders in total.
- Water use schematic diagram and facility plan are in Appendix C.
- Permitted processes:
 - Cleaning water (Outfall 001): processes in the cleaning water subcategory are processes where water comes in contact with the plastic product for the purpose of cleaning the surface of the product and where water comes in contact with shaping equipment, such as molds and mandrels that contact the plastic material for the purpose of cleaning the equipment surfaces.
 - Finishing water (Outfall 002): processes in the finishing water subcategory are processes where water comes in contact with the plastic product during finishing.
- Seasonal variation in production: there is no seasonal variation in production; however, Cresline-Northwest limited operations to 24-hours per day, 5 days per week, 50 weeks per year instead of 7 days per week due to the market condition March 2009. The facility plans to resume full production (7 days per week) during spring 2011. The production is shut down for maintenance approximately two weeks during Christmas and New Year.
- 32 people are employed at the facility.
- This is a new source.
- Chemicals stored at the facility, other than raw material and water treatment chemicals:
 - Gear box oils—five 50-gallon drums on hand.
 - Heat transfer fluid—one 50-gallon drums on hand.
 - MEK for printers—120 liters on hand.

Wastewater Pretreatment

Cresline-Northwest requested to keep the current outfall numbering.

- Cleaning water (Outfall 001).

FACT SHEET FOR STATE WASTE DISCHARGE PERMIT ST 6076

FACILITY NAME *Cresline-Northwest, LLC*

(May 2010)

- Oil water separator.
- Filter.

Initially Cresline-Northwest planned to install a steam cleaner or pressure washer; however, the cleaning operation has not been installed; although, Cresline-Northwest has requested that the cleaning water discharge is permitted in the reissued permit in case the facility decides to install the cleaning operation.

- Finishing water (Outfall 002).
 - Strainers (strainers are cleaned twice a year).
 - Filters (Crestline-Northwest uses the AVS5M40 MeltBlown water filters made by Parker. They are 5 micron and 40 inches long. The filter case holds 12 water filters.).
 - The water is re-circulated.
 - Discharge of up to 600 gallons once every 24-hours, 5 days a week.
- Cresline-Northwest adds the following chemicals into the water :
 - Cuprostat—5 gallons on hand.
 - 3D Trasar 3DT24—one 55 gallon drum on hand.
 - 7738 biocide—15 gallons on hand.
 - 77352NA biocide—15 gallons on hand.

Discharge Location to the City of Chehalis

Outfall and sampling locations are depicted on the facility plan, Appendix C.

Solid Wastes

- Solid Waste Handling

Cresline-Northwest must handle and dispose of all solid waste material in such a manner as to prevent its entry into state ground or surface water. Sludge from the finishing water recirculation system is removed and disposed offsite periodically.

- Leachate

The Permittee must not allow leachate from its solid waste material to enter state waters without providing all known, available and reasonable methods of treatment, nor allow such leachate to cause violations of the State Surface Water Quality Standards, Chapter 173-201A WAC, or the State Ground Water Quality Standards, Chapter 173-200 WAC. The Permittee must apply for a permit or permit modification as may be required for such discharges to state ground or surface waters.

- Solid Waste Control Plan

FACT SHEET FOR STATE WASTE DISCHARGE PERMIT ST 6076

FACILITY NAME *Cresline-Northwest, LLC*

(May 2010)

Cresline-Northwest does not have a solid waste control plan.

B. Permit Status

Cresline-Northwest submitted an application for permit renewal on August 29, 2008. Ecology accepted it as complete on October 3, 2008.

Ecology issued the previous permit for this facility on June 10, 2004. The previous permit placed effluent limits on flow, pH, copper, lead and zinc.

C. Summary of Compliance with Previous Permit Issued

Ecology staff last conducted a non- sampling compliance inspection on April 16, 2010.

In general Cresline-Northwest stays in compliance most of the time; however, the facility exceeded the permit limits three times since July 1, 2005:

1. Zinc: wastewater concentration of 1.95 mg/L and 1.98 mg/L exceeded the permit & local limit of 1.4 mg/L. Cresline-Northwest investigated the exceedances and concluded that chlorine leached zinc from galvanized pipes. The issue was fixed by limiting the chlorine application to once a month.
2. pH: pH of 5.99 SU exceeded the permit & lower local limit of 6.0 SU.

Also, special condition S4.A. requires Cresline-Northwest to review the Operation and Maintenance (O&M) manual at least annually in August each year. The facility shall confirm these reviews by letter to Ecology. Ecology has not received such letters.

The permit requires monitoring every batch at Outfall 002. Cresline-Northwest has been performing monthly monitoring.

Crestline-Northwest indicated that it was difficult to submit DMRs on time. Ecology suggested that the samples were taken at the beginning of each month, so there was another month and half to receive the lab reports and submit DMRs.

D. Wastewater Characterization

Crestline-Northwest reported the concentration of pollutants in the State Waste Discharge application and in discharge monitoring reports (DMRs) for Outfall 002. No data was been reported for Outfall 001. **Table 4** represents the quality of the effluent reported on the DMRs discharged from Outfall 002 from July 1, 2005. **Table 5** represents the quality of the effluent discharged from Outfall 002 reported in the application. The DMR data is also presented on graphs in Appendix C. The effluent is characterized as follows:

Table 4: Wastewater characterization reported on the DMRs since July 1, 2005 (Outfall 002).

Parameter	Units	Minimum value	Maximum value	Permit limit	Number of samples
Flow, maximum daily	gallons per day (gpd)	200	597	600	56

FACT SHEET FOR STATE WASTE DISCHARGE PERMIT ST 6076
FACILITY NAME *Cresline-Northwest, LLC*
(May 2010)

Table 4: Wastewater characterization reported on the DMRs since July 1, 2005 (Outfall 002).

Parameter	Units	Minimum value	Maximum value	Permit limit	Number of samples
pH	SU	5.99	8.65	6.0 to 9.0	56
Copper	mg/L	5 values listed as 0 (not detected)	.09	.25	56
Lead	mg/L	31 values listed as 0 (not detected)	0.02	2.0	56
Zinc	mg/L	1 value listed as 0 (not detected)	1.98	1.4	56

Table 5: Wastewater characterization reported in the application (Outfall 002).

Parameter	Units	Maximum value	Permit limit	Local limit
Flow, monthly average	gpd	700	700	N/A
Flow, maximum daily	gpd	600	600	N/A
5-day biochemical oxygen demand (BOD ₅)	mg/L	14	N/A	300
Total suspended solids (TSS)	mg/L	18	N/A	300
pH	SU	7.88	6.0 to 9.0	6.0 to 9.0
Total oil & grease	mg/L	<5	N/A	100
Arsenic	mg/L	<0.001	N/A	0.23
Cadmium	mg/L	<0.005	N/A	0.15
Chromium	mg/L	<0.05	N/A	2.0
Copper	mg/L	0.17	0.25	0.25
Cyanide	mg/L	Not reported	N/A	1.4
Lead	mg/L	0.007	2.0	0.14
Mercury	mg/L	<0.0002	N/A	0.0003
Nickel	mg/L	0.04	N/A	1.8
Selenium	mg/L	<0.001	N/A	0.2
Silver	mg/L	<0.01	N/A	0.16

(May 2010)

Table 5: Wastewater characterization reported in the application (Outfall 002).

Parameter	Units	Maximum value	Permit limit	Local limit
Zinc	mg/L	0.105	1.4	1.4

E. SEPA Compliance

Regulation exempts reissuance or modification of any wastewater discharge permit from the SEPA process as long as the permit contains conditions are no less stringent than state rules and regulations. The exemption applies only to existing discharges, not to new discharges.

III. PROPOSED PERMIT CONDITIONS

State regulations require that Ecology base permit discharge limits on the:

Technology and treatment methods available to treat specific pollutants (technology-based). Technology-based limits are set by the EPA and published as a regulation, or Ecology develops limits on a case-by-case basis (40 CFR 125.3, and RCW 90.48). Dischargers must treat wastewater using all known, available, reasonable methods of prevention, control, and treatment (AKART).

Effects of the pollutants to the POTW (local limits). Wastewater must not interfere with the operation of the POTW.

Applicable requirements of other local, state and federal laws.

Ecology applies the most stringent of these limits to each parameter of concern and further describes the proposed limits below.

The limits in this permit reflect information received in the application and from supporting reports (engineering, hydrogeology, monitoring, etc.). Ecology evaluated the permit application and determined the limits needed to comply with the rules adopted by the state of Washington. Ecology does not develop effluent limits for all reported pollutants. Some pollutants are not treatable at the concentrations reported, are not controllable at the source, and are not listed in regulation.

Ecology does not usually develop permit limits for pollutants that were not reported in the permit application but that may be present in the discharge. The permit does not authorize the discharge of the non-reported pollutants. During the five-year permit term, the facility's effluent discharge conditions may change from those conditions reported in the permit application. The facility must notify Ecology if significant changes occur in any constituent. Industries may be in violation of their permit until the permit is modified to reflect additional discharge of pollutants.

A. Technology-Based Effluent Limits

All waste discharge permits issued by Ecology must specify conditions requiring available and reasonable methods of prevention, control, and treatment (AKART) of discharges to waters of the state (RCW 90.48).

Existing federal categorical limits for this facility are found under [40 CFR 463—Plastics Molding and Forming Pont Source Category](#). Those categorical limits represent AKART for this facility.

The following permit limits are necessary to satisfy the requirement for AKART:

FACT SHEET FOR STATE WASTE DISCHARGE PERMIT ST 6076

FACILITY NAME *Cresline-Northwest, LLC*

(May 2010)

Any new source subject to this subpart that introduces pollutants into a publicly owned treatment works must comply with 40 CFR Part 403—General Pretreatment Regulations.

B. Effluent Limits Based On Local Limits

To protect the city of Chehalis POTW from pass-through, interference, concentrations of toxic chemicals that would impair beneficial or designated uses of sludge, or potentially hazardous exposure levels, Ecology believes it necessary to impose limits for certain parameters. Ecology based these limits on local limits established by the city of Chehalis POTW and codified in ordinance. Applicable limits for this discharge are listed in **Table 6**.

Table 6: Local limits.

Parameter	EFFLUENT LIMITS (mg/L)
Arsenic	0.23
Cadmium	0.15
Chromium	2.0
Copper	0.25
Cyanide	1.4
Lead	0.14
Mercury	0.0003
Nickel	1.8
Selenium	0.2
Silver	0.16
Zinc	1.4
Fat, oil and grease (FOG)	100
5-day biochemical oxygen demand (BOD5)	300
Total suspended solids (TSS)	300
pH ¹	6.0 SU to 9.0 SU
Temperature ²	150 degrees Fahrenheit

Pollutant concentrations in the proposed discharge with technology-based controls in place will not cause problems at the receiving POTW such as interference, pass-through or hazardous exposure conditions to POTW workers nor will it result in unacceptable pollutant levels in the POTW's sludge.

¹ Limited by the Chehalis Municipal Code Chapter 13.08.

² Limited by the Chehalis Municipal Code Chapter 13.08.

(May 2010)

C. Comparison of Effluent Limits with Limits of the Previous Permit Issued on June 10, 2004

Table 7: Comparison of Effluent Limits for Outfall 001

Parameter	Basis of Limit	Previous Effluent Limits		Proposed Effluent Limits
		Average Monthly	Maximum Daily	Maximum Daily
Flow, gpd	Specified in the application	600	700	700
pH, standard units (SU)	No data and local limit (ND&LL)	⁽³⁾		⁽⁴⁾
Arsenic, mg/L	ND&LL	N/A	N/A	0.23
Cadmium, mg/L	ND&LL	N/A	N/A	0.15
Chromium, mg/L	ND&LL	N/A	N/A	2.0
Copper, mg/L	ND&LL	N/A	0.25	0.25
Cyanide, mg/L	ND&LL	N/A	N/A	1.4
Lead, mg/L	ND&LL	N/A	0.14	0.14
Mercury, mg/L	ND&LL	N/A	N/A	0.0003
Nickel, mg/L	ND&LL	N/A	N/A	1.8
Selenium, mg/L	ND&LL	N/A	N/A	0.2
Silver, mg/L	ND&LL	N/A	N/A	0.16
Zinc, mg/L	ND&LL	N/A	1.4	1.4
Oil and grease (O&G), mg/L	ND&LL	N/A	N/A	100
5-day biochemical oxygen demand (BOD ₅), mg/L	ND&LL	N/A	N/A	300
Total suspended solids (TSS), mg/L	ND&LL	N/A	N/A	300

³ Within the range of 6.0 to 9.0.⁴ 6 to 9.

Table 8: Comparison of Effluent Limits for Outfall 002

Parameter	Basis of Limit	Previous Effluent Limits		Proposed Effluent Limits
		Average Monthly	Maximum Daily	Maximum Daily
Flow, gpd	Specified in the application	N/A	600	700
pH, standard units (SU)	Reasonable potential exists to exceed the local limit	⁽⁵⁾		⁽⁶⁾
Copper, mg/L	In the previous permit; no reasonable potential; therefore, monitoring reduced to once per year	N/A	0.25	0.25
Cyanide, mg/L	ND&LL	N/A	N/A	1.4
Lead, mg/L	In the previous permit; no reasonable potential exists; therefore, monitoring is reduced to once per year	N/A	0.14	0.14
Mercury, mg/L	Reasonable potential may exist to exceed the local limit	N/A	N/A	0.0003
Zinc, mg/L	Reasonable potential exists to exceed the local limit	N/A	1.4	1.4

IV. MONITORING REQUIREMENTS

Ecology requires monitoring, recording, and reporting (WAC 173-216-110) to verify that the treatment process functions correctly and that the discharge complies with the permit's effluent limits.

Outfall 001 is located at the discharge of the cleaning water. Outfall 002 is located at the discharge of the finishing water. Monitoring frequency for copper and lead at Outfall 002 is reduced from monthly to annual for good performance.

Ecology details the proposed monitoring schedule under Condition S2. Specified monitoring frequencies take into account the quantity and variability of the discharge, the treatment method, past compliance, significance of pollutants, and cost of monitoring.

⁵ Within the range of 6.0 to 9.0.

⁶ 6.0 to 9.0

FACT SHEET FOR STATE WASTE DISCHARGE PERMIT ST 6076

FACILITY NAME *Cresline-Northwest, LLC*

(May 2010)

The proposed permit requires additional annual monitoring to further characterize the facility's effluent. Those pollutants could have a significant impact on the receiving POTW and the facility did not provide data with the application.

The following is a list of pollutants requiring additional monitoring at Outfall 001:

- Arsenic
- Cadmium
- Chromium
- Cyanide
- Lead
- Mercury
- Nickel
- Selenium
- Silver
- Oil and grease (O&G)
- 5-day biochemical oxygen demand (BOD₅)
- Total suspended solids (TSS)

The following is a list of pollutants requiring additional monitoring at Outfall 002:

- Cyanide
- Mercury

A. Lab Accreditation

Ecology requires that facilities must use a laboratory registered or accredited under the provisions of chapter 173-50 WAC, *Accreditation of Environmental Laboratories* to prepare all monitoring data (with the exception of certain parameters).

V. OTHER PERMIT CONDITIONS

A. Reporting and Recordkeeping

Ecology based permit condition S3 on our authority to specify any appropriate reporting and recordkeeping requirements to prevent and control waste discharges (WAC 173-216-110 and CFR 403.12 (e),(g), and (h)).

(May 2010)

B. Operations and Maintenance

Ecology requires industries to take all reasonable steps to properly operate and maintain their wastewater treatment system in accordance with state regulations (WAC 173-240-080 and WAC 173-216-110). The facility has prepared and must submit an updated of an operation and maintenance manual as required by state regulation for the construction of wastewater treatment facilities (WAC 173-240-150). Implementation of the procedures in the Operation and Maintenance Manual ensures the facility's compliance with the terms and limits in the permit.

C. Prohibited Discharges

Ecology prohibits certain pollutants from being discharged to the POTW. These include substances which cause pass-through or interference, pollutants which may cause damage to the POTW or harm to the POTW workers (Chapter 173-216 WAC) and the discharge of designated dangerous wastes not authorized by this permit (Chapter 173-303 WAC).

D. Dilution Prohibited

Ecology prohibits the facility from diluting its effluent as a partial or complete substitute for adequate treatment to achieve compliance with permit limits.

E. General Conditions

Ecology bases the standardized General Conditions on state and federal law and regulations. They are included in all State Waste Discharge permits issued by Ecology.

VI. PUBLIC NOTIFICATION OF NONCOMPLIANCE

Ecology may annually publish a list of all industrial users in significant noncompliance with Pretreatment Standards or Requirements during any of the previous four quarters in a local newspaper. Accordingly, this permit condition informs the Facility that noncompliance with this permit may result in publication of the noncompliance.

VII. PERMIT ISSUANCE PROCEDURES

A. Permit Modifications

Ecology may modify this permit to comply with new or amended state or federal regulations.

B. Proposed Permit Issuance

This proposed permit meets all statutory requirements for authorizing a wastewater discharge, including those limits and conditions believed necessary to control toxics. Ecology proposes that the permit be issued for five years.

VIII. REFERENCES FOR TEXT AND APPENDICES

Washington State Department of Ecology.

Laws and Regulations(<http://www.ecy.wa.gov/laws-rules/index.html>)

Permit and Wastewater Related Information
(<http://www.ecy.wa.gov/programs/wq/wastewater/index.html>)

APPENDICES

APPENDIX A--PUBLIC INVOLVEMENT INFORMATION

Ecology proposes to reissue a permit to (insert the facility name). The permit prescribes operating conditions and wastewater discharge limits. This fact sheet describes the facility and Ecology's reasons for requiring permit conditions.

Ecology placed a Public Notice of Application on June 4, 2009, and June 6, 2009, in the *Chronicle* to inform the public about the submitted application and to invite comment on the reissuance of this permit.

Ecology will place a Public Notice on June 15, 2010, in the *Chronicle* to inform the public and to invite comment on the proposed reissuance of this State Waste Discharge permit as drafted.

The Notice –

Tells where copies of the draft Permit and Fact Sheet are available for public evaluation (a local public library, the closest Regional or Field Office, posted on our website.).

Offers to provide the documents in an alternate format to accommodate special needs.

Asks people to tell us how well the proposed permit would protect the receiving water.

Invites people to suggest fairer conditions, limits, and requirements for the permit.

Invites comments on Ecology's determination of compliance with antidegradation rules.

Urges people to submit their comments, in writing, before the end of the Comment Period

Tells how to request a public hearing of comments about the proposed State Waste Discharge Permit.

Explains the next step(s) in the permitting process.

Ecology has published a document entitled **Frequently Asked Questions about Effective Public Commenting** which is available on our website at <http://www.ecy.wa.gov/biblio/0307023.html>.

You may obtain further information from Ecology by telephone, 360-407-6280, or by writing to the permit writer at the address listed below.

Water Quality Permit Coordinator
Department of Ecology
Southwest Regional Office
P.O. Box 47775
Olympia, WA 98504-7775

The primary author of this permit and fact sheet is Jacek Anuszewski, P.E.

APPENDIX B--GLOSSARY

AKART--The acronym for “all known, available, and reasonable methods of prevention, control and treatment.” AKART is a technology-based approach to limiting pollutants from wastewater discharges which requires an engineering judgment and an economic judgment. AKART must be applied to all wastes and contaminants prior to entry into waters of the state in accordance with RCW 90.48.010 and 520, WAC 173-200-030(2)(c)(ii), and WAC 173-216-110(1)(a).

Alternate Point of Compliance--An alternative location in the ground water from the point of compliance where compliance with the ground water standards is measured. It may be established in the ground water at locations some distance from the discharge source, up to, but not exceeding the property boundary and is determined on a site specific basis following an AKART analysis. An “early warning value” must be used when an alternate point is established. An alternate point of compliance must be determined and approved in accordance with WAC 173-200-060(2).

Ambient Water Quality--The existing environmental condition of the water in a receiving water body.

Ammonia--Ammonia is produced by the breakdown of nitrogenous materials in wastewater. Ammonia is toxic to aquatic organisms, exerts an oxygen demand, and contributes to eutrophication. It also increases the amount of chlorine needed to disinfect wastewater.

Annual Average Design Flow (AADF)--The average of the daily flow volumes anticipated to occur over a calendar year.

Average Monthly Discharge Limit--The average of the measured values obtained over a calendar month's time.

Background water quality--The concentrations of chemical, physical, biological or radiological constituents or other characteristics in or of ground water at a particular point in time upgradient of an activity that has not been affected by that activity, [WAC 173-200-020(3)]. Background water quality for any parameter is statistically defined as the 95 percent upper tolerance interval with a 95 percent confidence based on at least eight hydraulically upgradient water quality samples. The eight samples are collected over a period of at least one year, with no more than one sample collected during any month in a single calendar year.

Best Management Practices (BMPs)--Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the State. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

BOD5--Determining the Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of organic material present in an effluent that is utilized by bacteria. The BOD5 is used in modeling to measure the reduction of dissolved oxygen in a receiving water after effluent is discharged. Stress caused by reduced dissolved oxygen levels makes organisms less competitive and less able to sustain their species in the aquatic environment. Although BOD is not a specific compound, it is defined as a conventional pollutant under the federal Clean Water Act.

Bypass--The intentional diversion of waste streams from any portion of the collection or treatment facility.

Categorical Pretreatment Standards--National pretreatment standards specifying quantities or concentrations of pollutants or pollutant properties which may be discharged to a POTW by existing or new industrial users in specific industrial subcategories.

Compliance Inspection - Without Sampling--A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations.

(May 2010)

Compliance Inspection - With Sampling--A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations. In addition it includes as a minimum, sampling and analysis for all parameters with limits in the permit to ascertain compliance with those limits; and, for municipal facilities, sampling of influent to ascertain compliance with the 85 percent removal requirement. Ecology may conduct additional sampling.

Composite Sample--A mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite"(collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increased while maintaining a constant time interval between the aliquots.

Construction Activity--Clearing, grading, excavation and any other activity which disturbs the surface of the land. Such activities may include road building, construction of residential houses, office buildings, or industrial buildings, and demolition activity.

Continuous Monitoring--Uninterrupted, unless otherwise noted in the permit.

Distribution Uniformity--The uniformity of infiltration (or application in the case of sprinkle or trickle irrigation) throughout the field expressed as a percent relating to the average depth infiltrated in the lowest one-quarter of the area to the average depth of water infiltrated.

Early Warning Value--The concentration of a pollutant set in accordance with WAC 173-200-070 that is a percentage of an enforcement limit. It may be established in the effluent, ground water, surface water, the vadose zone or within the treatment process. This value acts as a trigger to detect and respond to increasing contaminant concentrations prior to the degradation of a beneficial use.

Enforcement limit--The concentration assigned to a contaminant in the ground water at the point of compliance for the purpose of regulation, [WAC 173-200-020(11)]. This limit assures that a ground water criterion will not be exceeded and that background water quality will be protected.

Engineering Report--A document, signed by a professional licensed engineer, which thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater facility. The report shall contain the appropriate information required in WAC 173-240-060 or 173-240-130.

Ground water--Water in a saturated zone or stratum beneath the surface of land or below a surface water body.

Grab Sample--A single sample or measurement taken at a specific time or over as short period of time as is feasible.

Industrial User--A discharger of wastewater to the sanitary sewer which is not sanitary wastewater or is not equivalent to sanitary wastewater in character.

Industrial Wastewater--Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business, from the development of any natural resource, or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated storm water and, also, leachate from solid waste facilities.

Interference--A discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and

FACT SHEET FOR STATE WASTE DISCHARGE PERMIT ST 6076

FACILITY NAME *Cresline-Northwest, LLC*

(May 2010)

Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), sludge regulations appearing in 40 CFR Part 507, the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

Local Limits--Specific prohibitions or limits on pollutants or pollutant parameters developed by a POTW.

Maximum Daily Discharge Limit--The highest allowable daily discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge is calculated as the average measurement of the pollutant over the day.

Maximum Day Design Flow (MDDF)--The largest volume of flow anticipated to occur during a one-day period, expressed as a daily average.

Maximum Month Design Flow (MMDF)--The largest volume of flow anticipated to occur during a continuous 30-day period, expressed as a daily average.

Maximum Week Design Flow (MWDF)--The largest volume of flow anticipated to occur during a continuous 7-day period, expressed as a daily average.

Method Detection Level (MDL)--The minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is above zero and is determined from analysis of a sample in a given matrix containing the analyte.

pH--The pH of a liquid measures its acidity or alkalinity. It is the negative logarithm of the hydrogen ion concentration. A pH of 7.0 is defined as neutral, and large variations above or below this value are considered harmful to most aquatic life.

Pass-through--A discharge which exits the POTW into waters of the State in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation), or which is a cause of a violation of State water quality standards.

Peak Hour Design Flow (PHDF)--The largest volume of flow anticipated to occur during a one-hour period, expressed as a daily or hourly average.

Peak Instantaneous Design Flow (PIDF)--The maximum anticipated instantaneous flow.

Point of Compliance--The location in the ground water where the enforcement limit shall not be exceeded and a facility must be in compliance with the Ground Water Quality Standards. It is determined on a site specific basis and approved or designated by Ecology. It should be located in the ground water as near and directly downgradient from the pollutant source as technically, hydrogeologically, and geographically feasible, unless an alternative point of compliance is approved.

Potential Significant Industrial User--A potential significant industrial user is defined as an Industrial User which does not meet the criteria for a Significant Industrial User, but which discharges wastewater meeting one or more of the following criteria:

- a. Exceeds 0.5 percent of treatment plant design capacity criteria and discharges <25,000 gallons per day or;
- b. Is a member of a group of similar industrial users which, taken together, have the potential to cause pass through or interference at the POTW (e.g. facilities which develop photographic film or paper, and car washes).

FACT SHEET FOR STATE WASTE DISCHARGE PERMIT ST 6076

FACILITY NAME *Cresline-Northwest, LLC*

(May 2010)

Ecology may determine that a discharger initially classified as a potential significant industrial user should be managed as a significant industrial user.

Quantitation Level (QL)--A calculated value five times the MDL (method detection level).

Reasonable Potential--A reasonable potential to cause a water quality violation, or loss of sensitive and/or important habitat.

Significant Industrial User (SIU)--

- 1) All industrial users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N and;
- 2) Any other industrial user that: discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling, and boiler blow-down wastewater); contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the Control Authority* on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement (in accordance with 40 CFR 403.8(f)(6)).

Upon finding that the industrial user meeting the criteria in paragraph 2, above, has no reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement, the Control Authority* may at any time, on its own initiative or in response to a petition received from an industrial user or POTW, and in accordance with 40 CFR 403.8(f)(6), determine that such industrial user is not a significant industrial user.

*The term "Control Authority" refers to the Washington State Department of Ecology in the case of non-delegated POTWs or to the POTW in the case of delegated POTWs.

Slug Discharge--Any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge to the POTW. This may include any pollutant released at a flow rate which may cause interference with the POTW.

Soil Scientist--An individual who is registered as a Certified or Registered Professional Soil Scientist or as a Certified Professional Soil Specialist by the American Registry of Certified Professionals in Agronomy, Crops, and Soils or by the National Society of Consulting Scientists or who has the credentials for membership. Minimum requirements for eligibility are: possession of a baccalaureate, masters, or doctorate degree from a U.S. or Canadian institution with a minimum of 30 semester hours or 45 quarter hours professional core courses in agronomy, crops or soils, and have 5,3,or 1 years, respectively, of professional experience working in the area of agronomy, crops, or soils.

Solid waste--All putrescible and non-putrescible solid and semisolid wastes including, but not limited to, garbage, rubbish, ashes, industrial wastes, swill, sewage sludge, demolition and construction wastes, abandoned vehicles or parts thereof, contaminated soils and contaminated dredged material, and recyclable materials.

Soluble BOD5--Determining the soluble fraction of Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of soluble organic material present in an effluent that is utilized by bacteria. Although the soluble BOD test is not specifically described in Standard Methods, filtering the raw sample through at least a 1.2 um filter prior to running the standard BOD5 test is sufficient to remove the particulate organic fraction.

State Waters--Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

Stormwater--That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a storm water drainage system into a defined surface water body, or a constructed infiltration facility.

(May 2010)

Technology-based Effluent Limit--A permit limit that is based on the ability of a treatment method to reduce the pollutant.

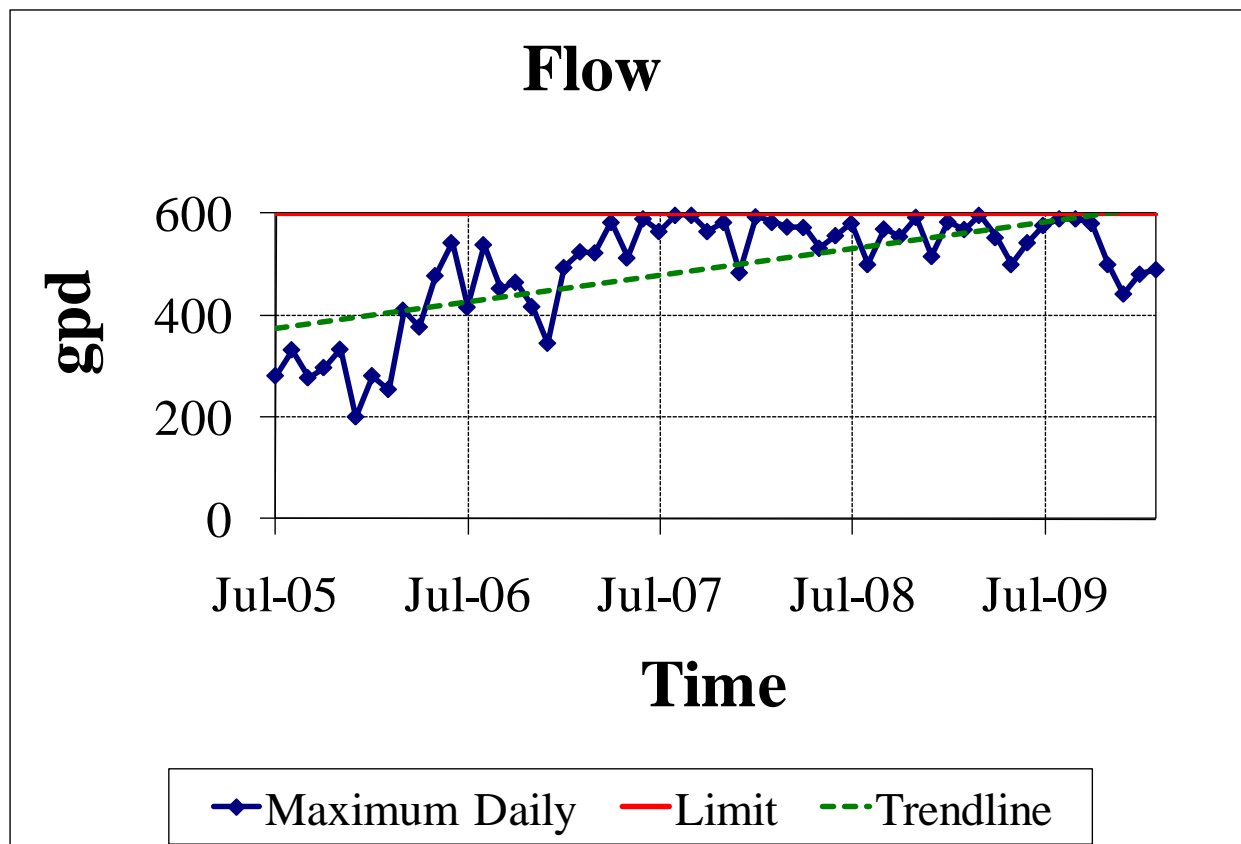
Total Coliform Bacteria--A microbiological test which detects and enumerates the total coliform group of bacteria in water samples.

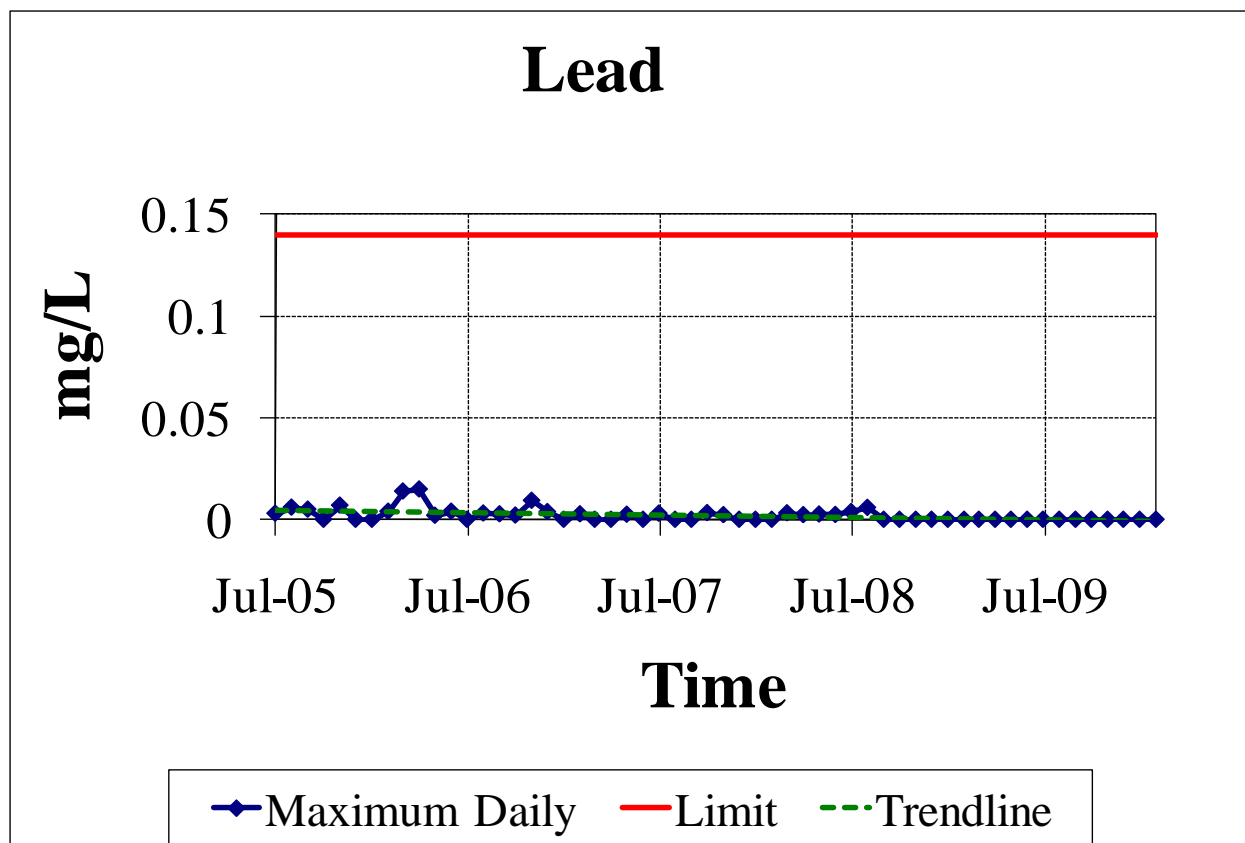
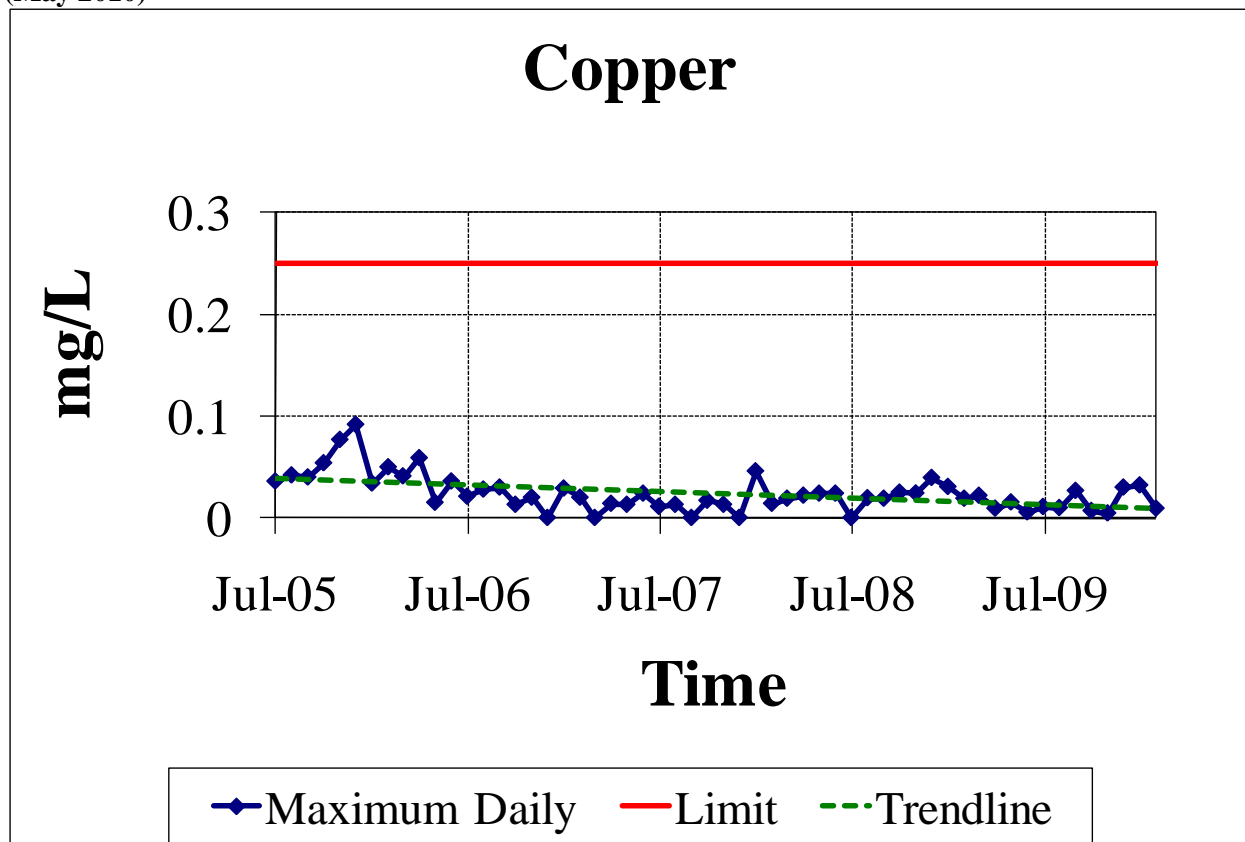
Total Dissolved Solids--That portion of total solids in water or wastewater that passes through a specific filter.

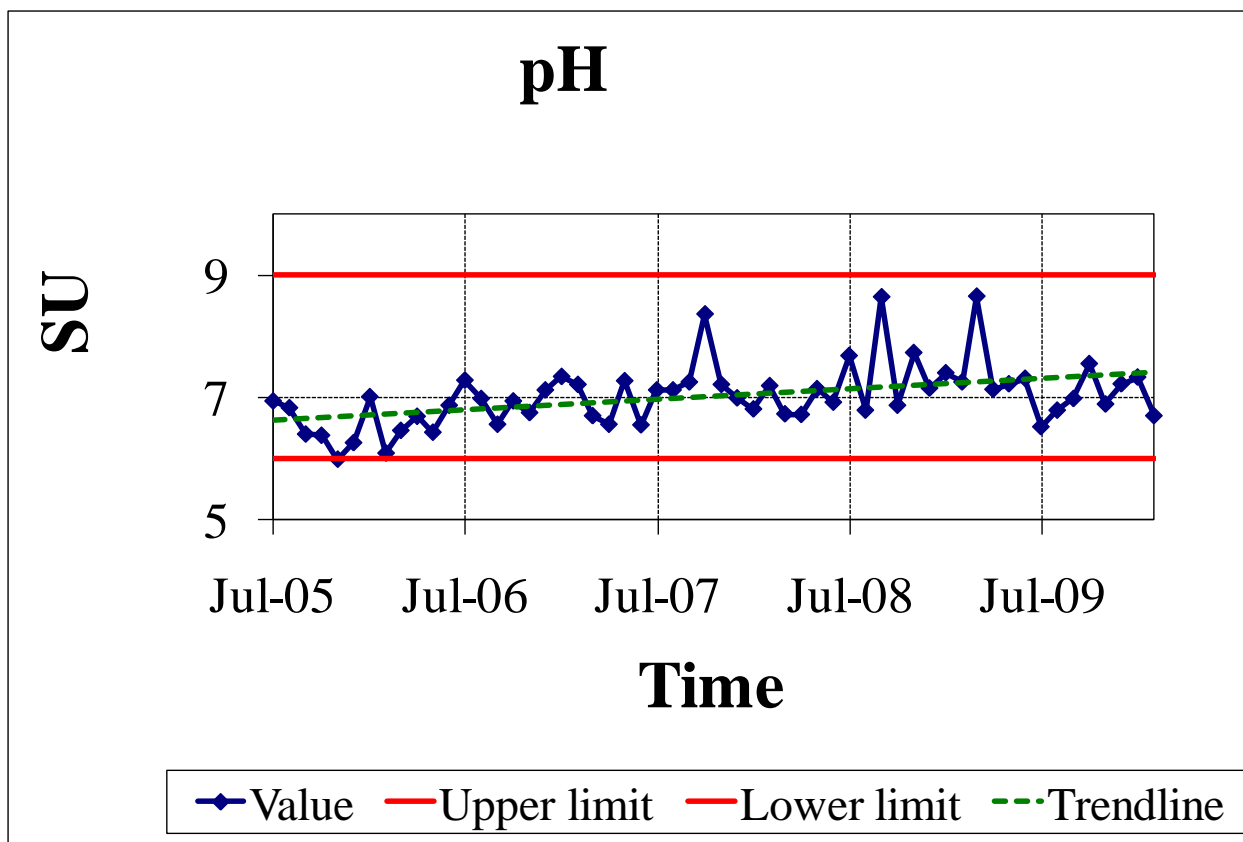
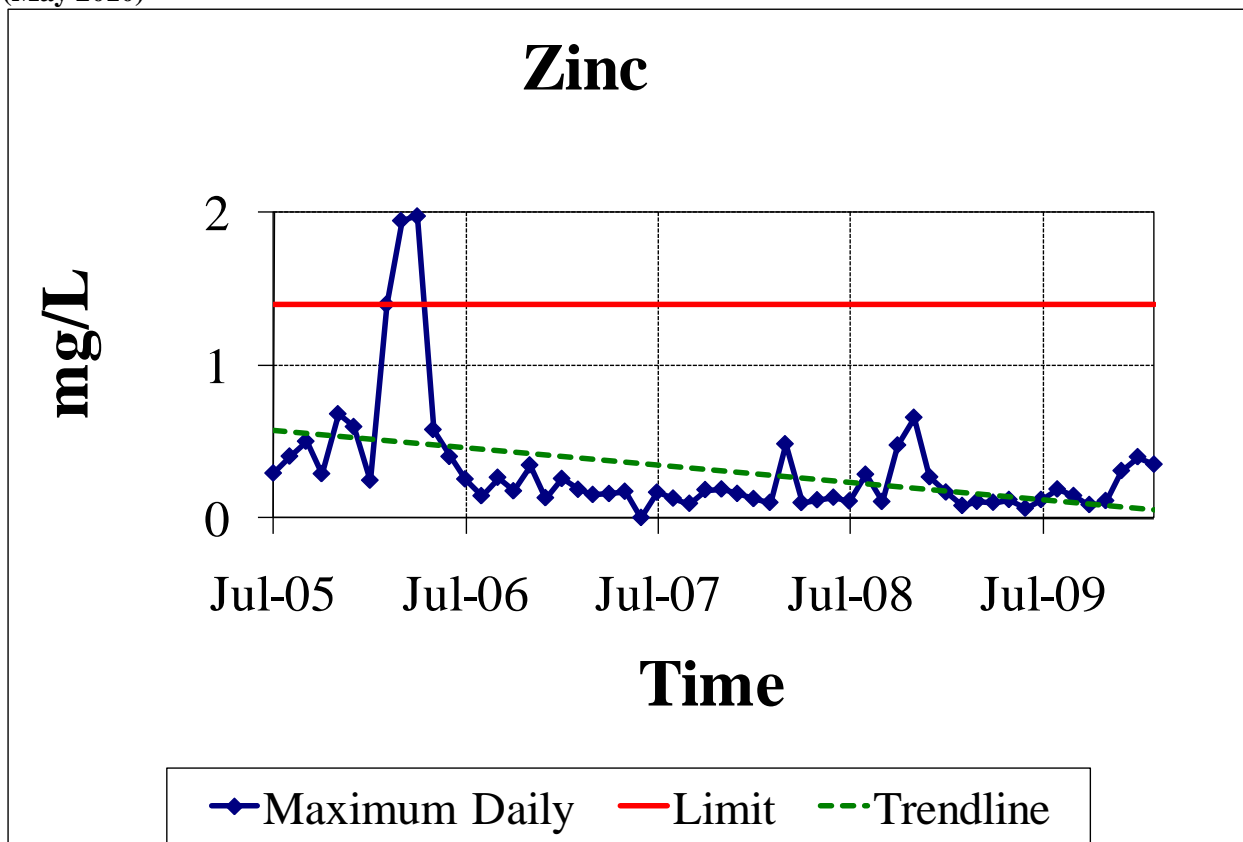
Total Suspended Solids (TSS)--Total suspended solids is the particulate material in an effluent. Large quantities of TSS discharged to a receiving water may result in solids accumulation. Apart from any toxic effects attributable to substances leached out by water, suspended solids may kill fish, shellfish, and other aquatic organisms by causing abrasive injuries and by clogging the gills and respiratory passages of various aquatic fauna. Indirectly, suspended solids can screen out light and can promote and maintain the development of noxious conditions through oxygen depletion.

Water Quality-based Effluent Limit--A limit on the concentration of an effluent parameter that is intended to prevent pollution of the receiving water.

APPENDIX C--TECHNICAL CALCULATIONS







APPENDIX D—RESPONSE TO COMMENTS